



MARINE ACADEMY OF TECHNOLOGY AND ENVIRONMENTAL SCIENCE

SCHOOL PROFILE 2020-2021

The Marine Academy of Technology and Environmental Science (MATES) is one of the career academies created by the Ocean County Vocational Technical School District. Opened in September 2001, the school exists to provide a unique, nurturing, and challenging learning environment for college-bound and career-oriented students interested primarily in the fields of math and science. The Ocean County Vocational Technical School District administers the high school and is responsible for recruitment, admissions, and the instructional program.

STUDENT BODY

MATES is a competitive, specialized high school that selects its 9th grade class each year from applicants found within the public and private schools of Ocean County. All students must apply and participate in a selective admissions process that considers middle school grades, standardized test scores, and an admissions test in English, Science, and Math. The students must successfully earn 161.5 high school credits or their college equivalent to graduate. Once enrolled, all students follow the most rigorous course of study offered at MATES.

EDUCATIONAL OPPORTUNITIES

Students have the opportunity to conduct outside research as well as structured learning experiences.

SCHOOL

- All Courses are instructed in a block format with 80-minute periods.
- Accreditation: Middle States Association and the National Consortium of Specialized Secondary Schools for Mathematics, Science and Technology (NCSSSMST)
- Enrollment: 278 as of September 2020
 - Freshmen – 72
 - Sophomores – 74
 - Juniors – 67
 - Seniors – 65
- Staff: 25
- 64% of professional staff have one or more degrees.
- 8% have doctoral degrees.
- CEEB Testing Code: 311473

2019-2020 MATES HIGHLIGHTS

- 17 National Merit Commended Scholars
- 1 National Merit Finalist and Award Recipient
- 1 student selected for New Jersey Governor’s School in the Sciences
- 1 student selected for New Jersey Scholars Program
- Rensselaer Polytechnic Institute Medalist - Class of 2021
- Jersey Shore Science Fair – 51 Award Winners
- Delaware Valley Science Fair – 24 Award Winners
- 2 selected for Intel International Science & Engineering Fair
- New Jersey Academy of Science – 3 Award Winners
- Delbarton Virtual Science Fair – 3 Award Winners
- InspoScience International Fair – 4 Finalists
- 1st Place - NJ Math League/Ocean County Math League
- 1st Place – NJ Chemistry Olympics Research
- 2nd place - Mock Trial

GRADING SYSTEM

MATES does not distinguish the level of courses within the school. All courses are taught at the honors or college level. **Grades are not weighted. Class rank is not computed.** GPAs are calculated as follows: each final grade is multiplied by the number of credits for that course. These calculations are added together and divided by the total number of earned credits. Career Education is infused into all coursework.

GRADING SCALE

A+	95-100
A	90-94
B+	85-89
B	80-84
C+	75-79
C	70-74
D	66-69
F	0-65

ARTICULATION AGREEMENT

In conjunction with Stockton University and Ocean County College (OCC), MATES provides students with the opportunity to earn college credits. Students will earn college credits during the course of their school day. The credits and grades earned through this collaborative program will appear on both their official high school transcript and an official college transcript. Students also have the opportunity to earn college credits through agreements with Monmouth University and Montclair State University.

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SCHOOL PROFILE 2020-2021 CONTINUED

CLASS OF 2020

- Class size: 70
- 99% Attending four year college
- 1% Attending two year college
- Scholarship Offers: \$16.4 million
Scholarships Accepted: \$4.9 million
- Highest GPA – 97.197
- Lowest GPA – 83.618

CLASS OF 2020 SAT RESULTS

100% of the Class of 2019 took the SAT

- Math: 729
State % – 543
National % – 528
- Evidence Based Reading and Writing: 679
State % - 542
National % – 531

CLUBS AND ACTIVITIES

Project Terrapin	Independent Science Research
Envirothon	Robotics
Extra-Curricular Athletics	Chemistry Olympics
Genders and Sexualities Alliance	Mock Trial
Math League	SkillsUSA
National Honor Society	Spanish Club
Fishing Club	Student Government
Environmental/Birding Club	Yearbook
Shore Bowl	Focus on the Drive
Key Club	Human Rights Club



MATES was recognized by the United States Department of Education as a 2012 Blue Ribbon School. This award is based on overall academic excellence.

MATES is an Institutional Member of the National Consortium of Secondary STEM Schools (NCSSSS). NCSSSS high schools are ranked as the best in the country and share the goals of transforming mathematics, science, and technology education.



MATES COURSE OF STUDY

All courses are instructed utilizing a block scheduling format ~ Classes are 80 minutes. All students are accepted via a competitive application process and follow the same rigorous course of study. Students must successfully complete 161.250 high school credits or their college equivalent to graduate. All high school courses are taught at an honors level or college level.

FRESHMAN YEAR	CREDIT(S)
English I	5
Algebra I/Research and Mathematical Analysis (RMA).....	5
Geometry	5
Chemistry I *	5
Biology I *	5
PE/ Health I	5
World History	5
MATES Spanish	5
Independent Research Study* <i>part of science course requirement</i>	
TOTAL:.....	40

SOPHOMORE YEAR.....	CREDIT(S)
English II	5
Statistics	5
Algebra II	5
Chemistry II	5
Aquatic Ecology	5
Spanish III.....	5
Spanish IV (OCC SPAN 152) or Research Methods/Applications	5
Health II/Driver's Education	1.25
PE II	3.75
TOTAL:.....	40

JUNIOR YEAR.....	CREDIT(S)
English III	5
Pre-Calculus	5
EFA/Trigonometry	5
Biotechnology (OCC BIOL 161)	5
Physics (OCC PHYS 171/172).....	5
Introduction to Art* or Spanish IV (OCC SPAN 152) or Computer Science**	5
US History I	5
PE III/Health III	3.75
Financial Literacy.....	2.5
TOTAL:.....	41.25

*Option II V/PA available as a P/F course in fulfillment of NJDOE requirements

**Placement test required

SENIOR YEAR.....	CREDIT(S)
AP Literature and Composition/ English I and II (OCC ENGL 151/152).....	5
Calculus (OCC MATH 265)	5
US History II	5
Oceanography (SU MARS 2202)	5
Environmental Science (SU ENVL 1100)	5
Computer Science or Data Science	5
Senior Elective*	5
PE/ Health IV	3.75
Senior Experience: Research/SLE	P/F
Total:.....	40

*Elective choices include Geographic Information Systems (SU GNM 1242); Geo/Astrophysics (SU GEOL 2120); Art History (OCC ARTS 182) and Basic Drawing (OCC ARTS 183)